

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTOPHER H. GENLY

Appeal No. 2005-0201
Application No. 09/494,714

ON BRIEF

MAILED

FEB 17 2005

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before HAIRSTON, GROSS, and BARRY, Administrative Patent Judges.
HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 4 through 14, 17 through 23 and 26 through 30. Appellant has decided to only appeal the rejection of claim 11 (brief, pages 1 and 4). Accordingly, the appeal as to all other claims in the record is dismissed.

The disclosed invention relates to a system wherein the output from a speaker is subtracted from the output of a

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microphone to reduce interference between the output from the speaker and a voice input to the microphone.

Claims 1 and 11 are the only claims before us, and they read as follows:

1. A system comprising:

a speech recognizer that recognizes spoken requests for television programming information;

an output device that generates responses to spoken requests for television programming information;

a module coupled to said recognizer to implement conversational speech; and

a graphical user interface which provides information in a visual form about television programming and a voice user interface which responds to voice requests from the user, said graphical user interface and said voice user interface communicating such that the focus of one of said interfaces is communicated to the other.

11. The system of claim 1 further including a processor coupled to a speaker and microphone, the output from said speaker being subtracted from the output of said microphone to reduce interference between the audio portion of a television program and a spoken request.

The references relied on by the examiner are:

Tomitsuka et al. (Tomitsuka)	5,566,271	Oct. 15, 1996
Finn	5,706,344	Jan. 6, 1998
Allie et al. (Allie)	5,715,320	Feb. 3, 1998
Craven et al. (Craven)	5,815,580	Sep. 29, 1998
Mueller et al. (Mueller)	6,009,398	Dec. 28, 1999
Schein et al. (Schein)	6,075,575	Jun. 13, 2000
		(filed Apr. 28, 1997)

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Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Schein in view of Tomitsuka, Mueller and well-known prior art as evidenced by Finn.

Reference is made to the final rejection (paper number 6), the reply to the final rejection (paper number 7), the advisory action (paper number 8), the brief (paper number 9) and the answer (paper number 11) for the respective positions of the appellant and the examiner.

OPINION

We have carefully considered the entire record before us, and we will sustain the obviousness rejection of claim 11.

The examiner acknowledged (final rejection, page 9) that "Schein fails to explicitly teach a system including a processor coupled to the speaker and a microphone, the output of said speaker being subtracted from the output of said microphone to reduce interference." According to the examiner, "subtracting undesired signals from a speech signal input to a microphone was well known in the art" (final rejection, page 9). The examiner concluded, however, that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to subtract the output of the speaker from the input of the microphone, as was well known in the art, for the purpose of

improving the operation of the system by reducing interference, and thereby improving the performance and accuracy of the speech recognizer" (final rejection, pages 9 and 10).

The appellant challenged the examiner's assertion of well-known teachings in the art, and requested that the examiner cite a reference to support such an assertion (paper number 7, page 6).

As requested by the appellant, the references to Finn, Allie and Craven were cited by the examiner as evidence that it was well known in the art to subtract undesired signals from microphone signals (paper number 8, attachment).

In response, the appellant argued (brief, page 5) that:

When challenged to cite references in support thereof, the Examiner, in the Advisory Action, cited three references. Plainly, none of these references have anything whatsoever to do with the claimed invention. Not one of them has anything to do with canceling the audio portion of a television program to avoid interference with spoken commands. In fact, they have nothing to do with speech recognition whatsoever. In view of the admission that the cited references fail to teach the claimed invention, and the fact that the newly cited references similarly fail to suggest the alleged well known art, there is an admitted failure to make out a *prima facie* rejection.

In response to the appellant's continued challenge to the assertion of well-known teachings, the examiner stated (answer, page 12) that:

At page 5 of the Brief, Applicant argues there was no effort to cite any rationale from within the references, which would support their combination. Applicant is referred to Finn col. 1, lines 36-40; col. 3, lines 45-51; and col. 4, lines 58-63, in which Finn specifically describes an echo canceling scheme via subtracting signals output from a loudspeaker from speech signals input to the microphone, thereby removing undesired noise and reducing interference. Thus, as indicated in the Final Rejection and rejection above, subtracting the output of the speaker from the input of the microphone, as was well known in the art as taught by Finn, for the purpose of improving the operation of the system by reducing interference, and thereby improving the performance and accuracy of the speech recognizer, requires ordinary skill in the art.

Based upon the teachings found in the referenced portions of Finn, we agree with the examiner's repeated assertions that it was well known in the art to subtract unwanted speaker signals from desired microphone signals¹ to improve the quality of the microphone signals, and that it would have been obvious to one of ordinary skill in the art to apply such a teaching to the combined teachings of Schein, Tomitsuka and Mueller for such an advantage. In the absence of a further challenge, we find that the examiner has successfully demonstrated the prima facie obviousness of claim 11.

¹ The summers 32 and 56 in Figure 1 of Finn perform the subtraction operation.

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DECISION

The decision of the examiner rejecting claim 11 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

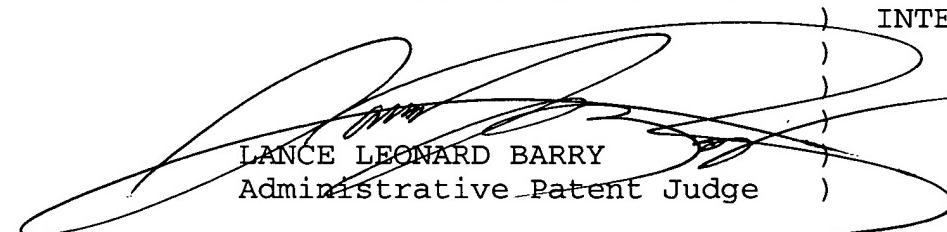

KENNETH W. HAIRSTON

Administrative Patent Judge

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